Claims

1. Photosensitive polymeric networks, comprising an amorphous network and a photoreactive component.

2. Photosensitive polymeric network in accordance with claim 1, wherein the amorphous network comprises a matrix component and a crosslinking component.

3. Photosensitive network in accordance with claim 2, wherein the photoreactive component is copolymerised with the amorphous network.

4. Photosensitive polymeric network in accordance with claim 2, wherein the photoreactive component is not copolymerised with the amorphous network.

5. Photosensitive polymeric network in accordance with claim 4, wherein the polymeric network comprises an amorphous network and a photoreactive component, physically admixed therewith.

6. Photosensitive polymeric network in accordance with any one of the preceding claims, wherein the matrix component is an acrylate material and/or a methacrylate material and wherein the crosslinking component is a diacrylate compound and/or a dimethacrylate compound.

7. Photosensitive polymeric network in accordance with any one of the preceding claims, wherein the photoreactive component is a component able to undergo a reversible photodimerization.

8. Photosensitive polymer network in accordance with any one of the preceding claims, wherein the photoreactive component is a cinnamic acid ester compound or a cinnamyl acid ester compound.

9. Photosensitive polymeric network in accordance with any one of the preceding claims, wherein the photoreactive compound is copolymerised with the amorphous network in the form of an acrylate compound or wherein the photoreactive component is physically admixed with the amorphous network in the form of a polymer or oligomer having at least three photoreactive groups.

10. Process for the preparation of a photosensitive polymeric network in accordance with any of the preceding claims, wherein either

a matrix component is polymerised with a crosslinking component and a photoreactive component or

a matrix component is polymerised with a crosslinking component followed by admixing a photoreactive component with the amorphous network.

11. Use of a photosensitive polymeric network in accordance with any of the preceding claims as medicinal material, in particular for transportation and for targeted release of drugs or diagnostic agents.

12. Photoreactive component, comprising an oligomeric or polymeric scaffold with at least three terminals, wherein each terminal comprises a photoreactive group.

13. Photoreactive component according to claim 12, wherein the photoreactive group is a group able to undergo a reversible photo dimerization.

14. Photoreactive component in accordance with claim 13, wherein the photoreactive group is a cinnamic acid ester compound or a cinnamyl acid ester compound.

15. Photoreactive component in accordance with any of claims 12 to 14, wherein the scaffold is a star shaped scaffold with three to 6, preferable for branches (chain terminals).

16. Photoreactive component in accordance with claim 15 wherein the scaffold is a polyalkylene glycol scaffold, preferably a polyethylene glycol scaffold.

17. Use of a photoreactive component in accordance with any of claims 12 to 16 for the preparation of a polymeric photosensitive network.

18. Process for programming a photosensitive polymeric network, comprising the following steps:

providing a sample of a photosensitive polymeric network, wherein the photoreactive groups are not present in photodimerized form,

deformation of the sample,

irradiation of the sample with light having a wavelength initiating the photodimerization of the photoreactive component,

relaxation of the sample.

19. Method for programming a photosensitive polymeric network in accordance with claim 18, wherein the photoreactive component is a cinnamic acid ester compound or a cinnamyl acid ester compound.

20. Method for programming a photosensitive polymeric network in accordance with claim 18 to 19, wherein the light is UV irradiation having a wavelength in the area of > 250 nm.